



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

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Project Title The Fat Attack	
Abstract Objectives/Goals Problem: Does the consumption of food high in saturated fat increase cholesterol? Hypothesis: I think that the consumption of foods high in saturated fat will increase cholesterol levels. Methods/Materials To conduct the experiment I used 3 male rabbits one year old with no prior history of heart problems, regular rabbit feed, Land o Lakes soft butter, and blood testing material. First a baseline cholesterol level has to be established to determine later on how fat consumption affected an otherwise healthy rabbit that did not consume a great amount of saturated fat before the experiment. This is done by feeding all the rabbits the same regular rabbit feed for one week then taking blood from the rabbit's ear and analyzing it in the laboratory. Following this rabbits #1 and #2 were fed # cups of high fat food once mid-morning and evening everyday. Rabbit #3, the control, was fed regular rabbit feed. Each rabbit had daily exercise runs for thirty minutes. Blood was taken approximately every 3 weeks to monitor cholesterol levels. Results The cholesterol levels in the experimental rabbits have increased substantially: Rabbit #1 from 64 mg/dL to 76 mg/dL; Rabbit #2 from 25 mg/dL to 45 mg/dL. The control rabbit (#3) has stayed relatively the same at 10 mg/dL to 12 mg/dL. Conclusions/Discussion The results of my experiment have supported my hypothesis. Since rabbits are physiologically similar to humans the increase in cholesterol has reinforced the fact that foods high in "bad" fat will adversely affect cholesterol levels. Heightened cholesterol has been a major cause of coronary heart disease.	
Summary Statement My project is about the direct correlation between diet and cholesterol levels.	
Help Received Father took blood	